

OPPORTUNITIES AND CHALLENGES IN AGRICULTURAL WATER REUSE | FINAL REPORT

SECTION 7: Bold Steps for USDA

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## **Bold Steps for USDA**

Each key question posed to participants in the discussion breakouts led to setting goals that were slightly out of reach to push USDA into reaching exceptional and proactive results. These bold steps are designed to be captured as measurable actions that result in success and provide a basis for accountability.

The Bold Steps Illustration (see next page) summarizes the responses from the four breakout sessions and the Take Home Message Section expands and summarizes these action steps.

When asked, "What should USDA do to expand its efforts in water reuse?" our panel discussants, Dan Carlson, representing municipal water and wastewater management; Keith Israel, regional water and wastewater management; Mark Millan, social and behavioral management; and Trevor Suslow, university research, outreach, and education, identified specific actions and responded to audience questions.

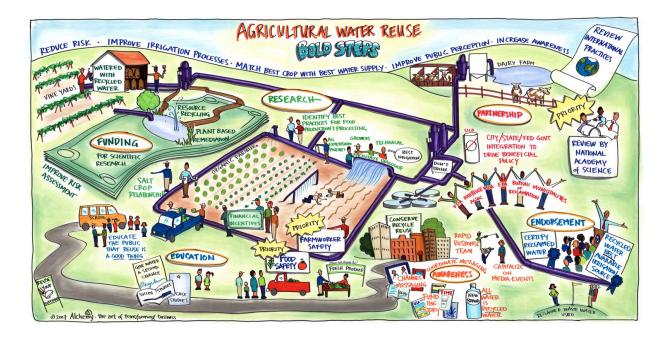
From the municipal water and wastewater management perspective, USDA should endorse the use of recycled water as a "safe available source for irrigation (SASI)." USDA–REE should help promote a federal consensus that recycled water is key to the security of our national resources. And finally, the REE mission area could provide funding for both planning and construction of recycled water facilities for agricultural reuse projects.

With respect to regional water and wastewater management, USDA should convene an annual recycled water workshop. As part of that workshop, one day might focus on discussions where regulators and irrigators could define the issues and research needs related to the use of recycled water. Based on a survey and review of food crop irrigation using both recycled and other waters, USDA needs to publish a white paper on crop irrigation water with the focus on suggested best management practices and a comparison of irrigation waters. Research studies about the use of recycled water for food crops should be a priority for funding from USDA.

From the social and behavioral management aspects of recycled water, USDA needs to provide funding towards public outreach, education, and developing a common language to explain water reuse issues—particularly towards public/consumer acceptance, producer acceptance, and purchaser/wholesaler/retailer acceptance of using recycled water in agriculture, expressly related to food/fresh market crops. REE could partner with the WateReuse Association to support farmers and communities that use recycled water. USDA should support research, outreach, and education efforts to communicate "relative risks" from emerging contaminants.

Key research needs in the safe use of reclaimed water on edible horticultural crops included an expansion of the database on re-growth potential, greater research to understand irrigation source blending, and groundwater recharge issues. USDA could help fund the determination of differential consequences of use in complex production systems where human bacterial pathogens are likely and/or possible. Other critical avenues for research include a reassessment of current safety assumptions for Df (filtered and disinfected) and Udf - 20 (unfiltered, disinfected secondary treated): 23-rule treatment uses for tree crops and seed crops and the development of science and data-based end-user and consumer awareness outreach using qualified and group appropriate communicators.

No regional coordinating committee exists that covers recycled water use for irrigated agriculture. Participants suggested that Congress establish a water caucus to move the application of recycled water in agriculture forward. In areas where programs are ineffective, we might have more support and success if recycled water was used by large farms in well-known and established farming regions, such as the Central Valley of California. Participants felt that there might be a unique opportunity to provide more support for water reuse research in the new farm bill and that the negative perceptions might change, "if people knew that the USDA supported recycled water."



## **Recommended Citation**

Dobrowolski, J., M. O'Neill, L. Duriancik, and J. Throwe (eds.). 2008. *Opportunities and challenges in agricultural water reuse: Final report.* USDA-CSREES, 89 p.



United States Department of Agriculture Cooperative State Research, Education, and Extension Service

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